Attachment

Pricing and Cost Summary

Contract Components	Monthly Charge
Hardware Maintenance	
9,500 Computers & Devices	$51,250
Software Support	
AIX SupportLine	$646
S/390 Systems Support	$28,533
Lotus Notes Support	$13,539
Internet Access	
T1 Internet Connection	$2,677
Project Office	
Integration, Coordination, Tracking, Reporting, and Solution Development	$59,027
Total Monthly:	$155,671

1

PCR 01-020
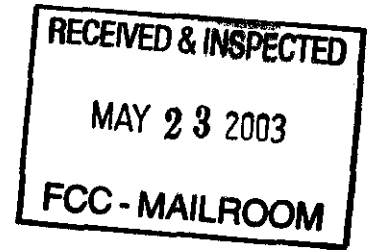
XO Communications
ATM WAN, Centrex, and T1 Services

prepared for

Memphis City Schools

January 2, 2002

IBM Global Services

Attachment 8

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1.0 Executive Summary

The IBM Technology Business Management Agreement provides for the integration of technology within Memphis City Schools (MCS). This PCR integrates ATM WAN service and Centrex telephone service provided by XO Tennessee, Inc. A Special Billing Arrangement has been developed to accommodate Erate requirements by the Schools and Libraries (SLD).

2.0 Statement of Work

This section defines the scope of service that will be provided by IBM under the terms and conditions of the *IBM Customer Agreement (Agreement)*. The tasks to be performed by IBM are defined and an estimated schedule is provided. In addition, the responsibilities of the Memphis City District (MCS) are listed. The investigation and the implementation of changes may result in modifications to the Estimated Schedule, Charges, and/or other terms of the *Agreement*. Changes to this Statement of Work will be processed in accordance with the procedure described in Project Change Control Procedure.

2.1 IBM Responsibilities

IBM will act as a technology integrator by providing the following XO services to MCS.

2.1.1 XO WAN Services

Task Description: The objective of this task is to provide an ATM fiber backbone service, connecting all schools to the data center allowing for Internet connectivity through an MCS supplier. IBM will act as a technology integrator by providing the following XO WAN services to MCS.

The following subtasks will be performed:
1. XO will provide a redundant OC-3 ATM fiber network backbone throughout the city of Memphis that will connect approximately 185 MCS locations.
2. The backbone design enables four to six schools to be connected in a redundant ring configuration to provide bandwidth performance and reliability.
3. The ATM backbone provides OC-12 capacity allowing for upgrades to higher speeds in the future..
4. XO will comply with the Special Billing Arrangement as described below.

Completion Criteria: The installation is completed when fiber connectivity is available to each location. Once installed the ATM WAN service is on-going.

Deliverables: Updates included in Status Reports

2.1.2 XO Centrex Telephone Service

Task Description: The objective of this task is to provide Centrex telephone service to Memphis City Schools.

The following subtasks will be performed:
1. XO will provide full feature Centrex telephone service to an estimated 8000 stations located in approximately 185 MCS locations.
2. The Centrex services will utilize the fiber backbone WAN installed for the ATM network WAN.
3. Emergency Access 911 will be included.
4. XO will comply with the Special Billing Arrangement as described below.
Completion Criteria: Once installed this task is an on-going service.

Deliverables: Updates included in Status Reports.

2.1.3 XO T1 Circuits

Task Description: The objective of this task is to provide XO T1 Circuit service to Memphis City Schools.

The following subtasks will be performed:
1. XO will provide T1 Circuit service to five (5) MCS sites for data and telephone transmissions.
2. XO will comply with the Special Billing Arrangement as described below.
Completion Criteria: Once installed this task is an on-going service.

Deliverables: Updates included in Status Reports.

2.1.4 Special Billing Arrangement

Task Description: The objective of this task is to provide a methodology for invoicing the above services to the appropriate parties.

The following subtasks will be performed:
5. XO will provide billing documentation to IBM and Memphis City Schools for approval. This should show detailed information regarding school WAN connectivity and telephone stations receiving service.
6. XO will invoice 79% to the SLD according to Erate guidelines and procedures and the appropriate balance to IBM.
7. IBM will invoice MCS for the remaining 21% .
Completion Criteria: This is an on-going task for the duration of the contract.

Deliverables: Updates included in Status Reports.

2.2 MCS Responsibilities

The responsibilities listed in this section are in addition to those responsibilities specified in the *Agreement* and are to be provided at no charge to IBM. IBM's performance is predicated upon the following responsibilities being fulfilled by MCS.

2.2.1 MCS Project Manager

Prior to the start of this Statement of Work under the Agreement, MCS will designate a person, called the MCS Project Manager, to whom all IBM communications will be addressed and who has the authority to act for MCS in all aspects of the contract.

The responsibilities of the MCS Project Manager include:

1. Serve as the interface between the IBM project team and all MCS departments participating in this project.
2. With the IBM Project Manager, administer Project Change Control in accordance with Section 2.5 Project Change Control Procedure."
3. Attend project status meetings.
4. Obtain and provide timely information, data, decisions and approvals.
5. Resolve deviations from project plans which may be caused by MCS.
6. Help resolve project issues and escalate issues within the MCS organization, as necessary
7. Provide appropriate personnel to support user related project tasks such as MCS systems administration, application support, end user requirements, and all MCS systems interfaces
8. Perform appropriate responsibilities associated with E-rate procedures and guidelines

2.3 Deliverable Materials

The following items will be delivered to MCS under this Statement of Work.

2.3.1 Type I Materials

None

2.3.2 Type II Materials

- Monthly Status Report

2.4 Completion Criteria

IBM shall have fulfilled its obligations under this Statement of Work when any one (1) of the following first occurs:

- IBM accomplishes the IBM tasks described in "IBM Responsibilities," including delivery to MCS of the materials listed in "Deliverable Materials".
- MCS or IBM terminates the Project in accordance with the provisions of the *Agreement.*

2.5 Project Change Control Procedures

The following provides a detailed process to follow if a change to this Statement of Work (SOW) is required.

- A Project Change Request (PCR) will be the vehicle for communicating change. The PCR must describe the change, the rationale for the change and the effect the change will have on the project.

- The designated Project Manager of the requesting party will review the proposed change and determine whether to submit the request to the other party.

- Both Project Managers will review the proposed change and approve it for further investigation or reject it. IBM will specify any charges for such investigation. If the investigation is authorized, the Project Managers will sign the PCR, which will constitute approval for the investigation charges. IBM will invoice MCS for any such charges. The investigation will determine the effect that the implementation of the PCR will have on price, schedule and other terms and conditions of the Agreement

- A written Change Authorization must be signed by both parties to authorize implementation of the investigated changes.

2.6 Estimated Schedule

The estimated schedule is:
Estimated Start Date: July 01, 2002   Estimated End Date: June 30, 2003

2.7 Charges

	Total	Approximate Breakout SLD 79%	MCS/IBM 21%
ATM WAN Services			
Monthly per School	$1,522.00	$1,202.38	$319.62
Monthly, 185 locations	$281,570.00	$222,440.30	$59,129.70
Total Annually	$3,378,840.00	$2,669,283.60	$709,556.40
Centrex Telephone Services			
Monthly per Station	$20.50		
911 Access	$0.50		
Total per station	$21.00	$16.59	$4.41
Monthly for 8000 Stations	$168,000.00	$132,720.00	$35,280.00
Total Annually	$2,016,000.00	$1,592,640.00	$423,360.00
5 T1 Circuits			
Monthly per Circuit	$270.00	$213.30	$56.70
Monthly Total for 5 Circuits	$1,350.00	$1,066.50	$283.50
Total Annually	$16,200.00	$12,798.00	$3,402.00

This offer will expire on February 16, 2002.

3.0 IBM Change Authorization for Project Support Services

Each of us agrees to modify the referenced Statement of Work and any applicable terms as follows:

IBM will modify the existing agreement as described in the Scope of Services described in this document

IBM and Memphis City Schools mutually agree that final approval of this project may be subject to review by the Memphis City Schools Board of Education and the availability of Universal Services Funds(E-rate). If funding or approval is not committed, no products or services will be delivered and this Change Authorization is void. If partial funding is committed, the products and services will be adjusted based upon a mutually agreed scope of effort.

We agree to incorporate the changes described in this PCR provided you accept this PCR on or before February 16, 2002 by signing in the space provided below.

Each of us agrees that the complete agreement between us about these Services consists of 1) this Change Authorization, 2) the referenced Statement of Work, and 3) the IBM Customer Agreement or IBM Agreement for Services, as applicable (or any equivalent agreement signed by both of us).

Agreed to: **Memphis City Schools**	*Agreed to :* **International Business Machines Corporation Armonk, New York 10504**
By: *Nancy Richie*	By:
Authorized Signature	Authorized Signature
Name (type or print) *Nancy Richie*	Name (type or print) *Ross Mead*
Date: *Jan 1/7/02*	Date: *1/7/02*
Customer Number: 5683003	Reference Agreement Number: 5J21301
Customer Address: **2597 Avery Avenue**	Reference Statement of Work number:
Memphis, TN 38112	Change Authorization Number: **PCR 01-020**
Project Name or Identifier: **Technology Business Management Contract**	IBM Office Number: **NFK**

IBM Office Address: **6410 Poplar Ave. Suite 800**

Memphis, TN 38119

Agreed to: **XO Tennessee, Inc of Tennessee**

By: _____
Authorized Signature
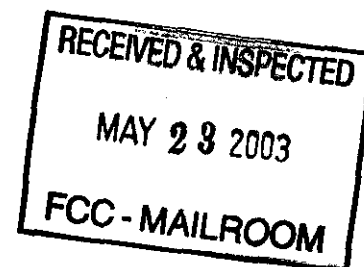
Name: (type or print) *TONY LANNOM*

Date: *1/7/02*

PCR 01-021

for the

Network Monitoring, On-Site Technical Support and Maintenance

prepared for

Memphis City Schools

January 9, 2002

IBM Global Services

IBM

Attachment 9

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1.0 Executive Summary

IBM Global Services is pleased to provide professional services to Memphis City Schools (MCS) for Network Monitoring, On-Site Technical Support, and Maintenance.

- IBM will provide a Tivoli Netview system that will enable continuous monitoring of the MCS ATM and Local Area Network (LAN) environment for improved reliability and performance. This system will track network performance and provide alerts indicating potential network problems.

- IBM on-site networking specialists will provide technical support for the installed ATM networking devices and provide diagnosis of problems for corrective action. They will investigate problem indicators and perform problem source identification with follow-up action to resolution. These on-site specialists will also maintain the network with configuration updates, addressing dynamics, and software release and fix updates. Networking diagrams and operations processes will be developed and maintained to optimize network operation and reliability.

- IBM will provide on-site hardware maintenance on installed networking servers and devices which include installation of IBM recommended engineering changes and microcode updates.

2.0 Statement of Work

This section defines the scope of service that will be provided by IBM under the terms and conditions of the *IBM Customer Agreement (Agreement)*. The tasks to be performed by IBM are defined and an estimated schedule is provided. In addition, the responsibilities of Memphis City Schools (MCS) are listed.

Changes to this Statement of Work will be processed in accordance with the procedure described as "Project Change Control Procedure."

The investigation and the implementation of changes may result in modifications to the Estimated Schedule, Charges, and/or other terms of the *Agreement*.

The following are incorporated in and made a part of this Statement of Work:

* "Appendix A Inventory Listing"

2.1 Project Scope

IBM will provide professional services for Network Monitoring, On-site Technical Support and Maintenance for the period of July 1, 2001 through June 30, 2002. The scope of this project includes the following key elements:

* IBM will provide a Tivoli Netview system that will enable continuous monitoring of the MCS ATM and Local Area Network (LAN) environment for improved reliability and performance. This system will track network performance and provide alerts indicating potential network problems.

* IBM on-site networking specialists will provide technical support for the installed ATM networking devices and provide diagnosis of problems for corrective action. They will investigate problem indicators and perform problem source identification with follow-up action to resolution. These on-site specialists will also maintain the network with configuration updates, addressing dynamics, and software release and fix updates. Networking diagrams and operations processes will be developed and maintained to optimize network operation and reliability.

* IBM will provide on-site hardware maintenance on installed networking servers and IBM networking devices which include installation of IBM recommended engineering changes and microcode updates.

2.2 Key Assumptions

This Statement of Work and IBM's estimates to perform the Statement of Work are based on the following key assumptions:

1. Work performed under this agreement will be primarily performed during normal business hours, Monday through Friday, 8:00 a.m. to 5:00 p.m. local time, except holidays, unless otherwise agreed to by MCS and IBM.

2. MCS will provide access to the building as needed to accommodate the on-site support activity.

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3. Work will be performed at approximately 185 MCS sites in Memphis, Tennessee.

4. The success of this project will require the active participation of both MCS and IBM personnel. The appropriate MCS personnel will be available for consultation (i.e. interviews, review sessions, etc.) throughout the duration of the project.

5. Universal Services Funds Erate eligibility is indicated on this Statement of Work based upon a mutual understanding of eligible services by IBM and MCS.

2.3 IBM Responsibilities

2.3.1 Network Monitoring (Not Erate Eligible)

Task Description: The objective of this task is to provide a network monitoring system to manage the MCS ATM/Ethernet network connecting all schools to the internet.

The following Subtasks will be performed:

1. IBM will provide a server based Tivoli Netview system to enable continuous monitoring of the Memphis City Schools ATM and Local Area Network (LAN) environment.

2. The system will utilize Tivoli Distributed Netview and NWAYS Campus LAN Manager to monitor MCS LAN 8265/8271 networking devices. The systems will initiate alerts indicating network performance problems and provide detailed information for troubleshooting. The total number of devices is approximately 3500.

Completion Criteria: This task is complete when the period of service coverage has been renewed or expired.

Deliverables:

1. Average WAN-link bandwidth utilization for each MCS campus

2. SNMP alert totals for each MCS campus

2.3.2 On-Site Technical Support (Erate Eligible)

Task Description: The objective of this task is to provide IBM on-site technical networking support for the Memphis City Schools network.

The following Subtasks will be performed:

1. IBM on-site networking specialists will manage the overall support of the installed IBM 8265/8271 networking devices. See Attachment A, Inventory Listing.

2. This support includes trouble-shooting network problems and degradation in performance for problem source identification. It also includes configuration changes, addressing dynamics, updating of software releases, and applying software fixes.

3. Network specialists will initiate service requests to IBM LAN hardware support technicians and provide assistance through resolution. They will also provide a technical interface with WAN and Internet Service Providers (ISP) for problem source identification and problem management.

4. Post installation documentation will be maintained to reflect changes and provide information to MCS support groups. The network operations guide will be maintained for the overall network to include network equipment start-up and shut-down procedures

5. Network documentation will be accessible to MCS technical personnel in electronic and printed format.

6. Network specialists will assist the MCS technical staff with planning for network changes and installations.

Completion Criteria: This task is complete when the period of service coverage has been renewed or expired.

Deliverables:

1. Description of any significant network outages to identify root cause

2. Status of on-going network problem determination activity

3. Updated Network Diagrams

4. Updated Operations Guide

2.3.3 Network and Server Maintenance Support (Erate Eligible)

Task Description: IBM will provide maintenance on the previously installed networking and server equipment.

The following sub tasks will be performed:

1. IBM will provide on-site hardware maintenance of installed networking servers and devices. See the listing in Appendix A, Inventory Listing.

2. Maintenance coverage is 24 hours per day, 7 days per week.

3. IBM maintenance includes the installation of IBM recommended engineering changes and microcode updates.

Completion Criteria: This task is complete when the period of service coverage has been renewed or expired.

Deliverables: None

2.4 MCS Responsibilities

The responsibilities listed in this section are in addition to those responsibilities specified in the *Agreement* and are to be provided at no charge to IBM.

2.4.1 MCS Project Manager

Prior to the start of this Statement of Work under the Agreement, MCS will designate a person, called the MCS Project Manager, to whom all IBM communications will be addressed and who has the authority to act for MCS in all aspects of the contract.

The responsibilities of the MCS Project Manager include:

1. Serving as the interface between the IBM project team and all MCS departments participating in this project.

2. Administering Project Change Control, with the IBM Project Manager, in accordance with the Project Change Control Procedure.

3. Attendance at project status meetings.

4. Providing timely information, data, decisions, approvals, and resolve project issues the MCS organization, as necessary.

5. Resolution of deviations from project plans which may be caused by MCS.

6. Providing appropriate personnel to support user related project tasks such as MCS systems administration, application support, end user requirements, and all MCS systems interfaces.

7. Performance of appropriate MCS responsibilities associated with E-rate procedures and guidelines.

2.4.2 Netview Server Requirements

1. Optimal systems operation requires that the Netview server be installed in the MCS Data Center in a controlled environment.

2. The MCS PM will provide access to the building and appropriate remote sites.

2.4.3 Security, Laws, Regulations, and Statutes,

1. MCS is responsible for the actual content of any data file, selection and implementation of controls on its access and use, and security of the stored data.

2. MCS is responsible for the identification and interpretation of any applicable laws, regulations, and statutes that affect MCS application systems or programs which IBM will have access to during this project.

3. It is the responsibility of MCS to assure that the resulting systems and programs meet the requirements of those laws.

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2.8 Estimated Schedule

The estimated schedule is:

Estimated Start Date: July 01, 2002   Estimated End Date: June 30, 2003

2.9 Charges

The price for performing the IBM tasks defined in the Statement of Work is:

2.3.1 Network Monitoring (Not Erate eligible)

Annual Recurring Charges	Not Erate Eligible	$ 175,000

2.3.2 On-Site Technical Support (Erate eligible)

Annual Recurring Charges for 178 schools ($3,500 per school)	Erate Eligible	$ 623,000
Annual Recurring Charges for Network Infrastructure	Erate Eligible	$ 42,000
Total Amount for 178 schools and Network Infrastructure	Erate Eligible	$ 665,000

2.3.2 Network and Server Maintenance (Erate eligible)

Annual Recurring Maintenance Charges	Erate Eligible	$1,295,952

MCS will be invoiced monthly payable upon receipt.

This offer will expire on February 16, 2002.